

Appl. No. : 10/733,878
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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently amended) A method of modulating expression of a THAP THAP1 responsive gene, said method comprising modulating the interaction of a ~~THAP family~~ THAP1 polypeptide or a biologically active fragment thereof with a nucleic acid, thereby enhancing or repressing expression of said ~~THAP~~ THAP1 responsive gene.

2. (Canceled)

3. (Currently amended) The method of Claim 1, wherein said nucleic acid is a THAP responsive promoter that is responsive to THAP1.

4. (Original) The method of Claim 3, wherein said THAP responsive promoter comprises a THAP responsive element.

5. (Withdrawn) The method of Claim 4, wherein said THAP responsive element is a DR-5 element.

6. (Withdrawn) The method of Claim 4, wherein said THAP responsive element is an ER-11 element.

7. (Original) The method of Claim 4, wherein said THAP responsive element is THREE.

8. (Withdrawn) The method of Claim 3, wherein said THAP responsive promoter does not comprise a THAP responsive element.

9. (Withdrawn) The method of Claim 8, wherein said THAP responsive promoter is modulated by a product of a gene that is under the control of a promoter which comprises a THAP responsive element.

10. (Withdrawn) The method of Claim 1, wherein said THAP responsive gene is selected from the group consisting of Survivin, PTTG1/Securin, PTTG2/Securin, PTTG3/Securin, CKS1, MAD2L1, USP16/Ubp-M, HMMR/RHAMM, KIAA0008/HURP, CDCA7/JPO1 and THAP1.

11. (Withdrawn) The method of Claim 1, wherein said THAP responsive gene encodes a polypeptide involved in the G2 or M phase of the cell cycle.

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12. (Withdrawn) The method of Claim 1, wherein said THAP responsive gene encodes a polypeptide involved in the S phase of the cell cycle.

13. (Withdrawn) The method of Claim 12, wherein said THAP responsive gene encodes a polypeptide involved in DNA replication.

14. (Withdrawn) The method of Claim 12, wherein said THAP responsive gene encodes a polypeptide involved in DNA repair.

15. (Withdrawn) The method of Claim 1, wherein said THAP responsive gene encodes a polypeptide involved in RNA splicing.

16. (Withdrawn) The method of Claim 1, wherein said THAP responsive gene encodes a polypeptide involved in apoptosis.

17. (Withdrawn) The method of Claim 1, wherein said THAP responsive gene encodes a polypeptide involved in angiogenesis.

18. (Withdrawn) The method of Claim 1, wherein said THAP responsive gene encodes a polypeptide involved in the proliferation of cancer cells.

19. (Currently amended) The method of Claim 1, wherein said THAP THAP1 responsive gene encodes a polypeptide involved in inflammatory disease.

20. (Withdrawn) A method of modulating the expression of a gene responsive to a THAP/chemokine complex, said method comprising modulating the interaction of a chemokine with a THAP-family polypeptide or a biologically active fragment thereof, thereby enhancing or repressing expression of said gene.

21. (Withdrawn) The method of Claim 20, wherein said THAP-family polypeptide is THAP1.

22. (Withdrawn) The method of Claim 20, wherein said chemokine is selected from the group consisting of SLC, CCL19, CCL5, CXCL11, CXCL10 and CXCL9.

23. (Withdrawn) The method of Claim 20, wherein said chemokine is SLC.

24. (Withdrawn) The method of Claim 20, wherein said chemokine is CXCL9.

25. (Withdrawn) The method of Claim 20, wherein the interaction between said chemokine and said THAP-family polypeptide is modulated by providing a THAP-type chemokine-binding agent.

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26. (Withdrawn) The method of Claim 25, wherein said THAP-type chemokine-binding agent comprises a polypeptide selected from the group consisting of a THAP1 polypeptide, an chemokine-binding domain of a THAP1 polypeptide, a THAP1 polypeptide oligomer, an oligomer comprising a THAP1 chemokine-binding domain, a THAP1 polypeptide-immunoglobulin fusion, a THAP1 chemokine-binding domain-immunoglobulin fusion and polypeptide homologs of any one of the aforementioned polypeptides.

27. (Withdrawn) The method of Claim 26, wherein said chemokine-binding domain is an SLC-binding domain.

28. (Withdrawn) The method of Claim 26, wherein said chemokine-binding domain is a CXCL9-binding domain.

29. (Withdrawn) The method of Claim 20, wherein said gene encodes a polypeptide involved in the G2 or M phase of the cell cycle.

30. (Withdrawn) The method of Claim 20, wherein said gene encodes a polypeptide involved in the S phase of the cell cycle.

31. (Withdrawn) The method of Claim 30, wherein said gene encodes a polypeptide involved in DNA replication.

32. (Withdrawn) The method of Claim 30, wherein said gene encodes a polypeptide involved in DNA repair.

33. (Withdrawn) The method of Claim 20, wherein said gene encodes a polypeptide involved in RNA splicing.

34. (Withdrawn) The method of Claim 20, wherein said gene encodes a polypeptide involved in apoptosis.

35. (Withdrawn) The method of Claim 20, wherein said gene encodes a polypeptide involved in angiogenesis.

36. (Withdrawn) The method of Claim 20, wherein said gene encodes a polypeptide involved in the proliferation of cancer cells.

37. (Withdrawn) The method of Claim 20, wherein said gene encodes a polypeptide involved in inflammatory disease.

38. (Withdrawn) A method of modulating the expression of a gene responsive to a THAP/chemokine complex, said method comprising modulating the interaction of a

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THAP/chemokine complex with a nucleic acid, thereby enhancing or repressing expression of said gene.

39. (Withdrawn) The method of Claim 38, wherein said THAP-family polypeptide is THAP1.

40. (Withdrawn) The method of Claim 38, wherein said chemokine is selected from the group consisting of SLC, CCL19, CCL5, CXCL11, CXCL10 and CXCL9.

41. (Withdrawn) The method of Claim 38, wherein said chemokine is SLC.

42. (Withdrawn) The method of Claim 38, wherein said chemokine is CXCL9.

43. (Withdrawn) The method of Claim 38, wherein said gene encodes a polypeptide involved in the G2 or M phase of the cell cycle.

44. (Withdrawn) The method of Claim 38, wherein said gene encodes a polypeptide involved in the S phase of the cell cycle.

45. (Withdrawn) The method of Claim 44, wherein said gene encodes a polypeptide involved in DNA replication.

46. (Withdrawn) The method of Claim 44, wherein said gene encodes a polypeptide involved in DNA repair.

47. (Withdrawn) The method of Claim 38, wherein said gene encodes a polypeptide involved in RNA splicing.

48. (Withdrawn) The method of Claim 38, wherein said gene encodes a polypeptide involved in apoptosis.

49. (Withdrawn) The method of Claim 38, wherein said gene encodes a polypeptide involved in angiogenesis.

50. (Withdrawn) The method of Claim 38, wherein said gene encodes a polypeptide involved in the proliferation of cancer cells.

51. (Withdrawn) The method of Claim 38, wherein said gene encodes a polypeptide involved in inflammatory disease.

52. (Withdrawn) The method of Claim 38, wherein said nucleic acid is a THAP responsive promoter.

53. (Withdrawn) The method of Claim 52, wherein said THAP responsive promoter comprises a THAP responsive element.

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54. (Withdrawn) The method of Claim 53, wherein said THAP responsive element is a DR-5 element.

55. (Withdrawn) The method of Claim 53, wherein said THAP responsive element is an ER-11 element.

56. (Withdrawn) The method of Claim 53, wherein said THAP responsive element is THRE.

57. (Withdrawn) The method of Claim 52, wherein said THAP responsive promoter does not comprise a THAP responsive element.

58. (Withdrawn) The method of Claim 57, wherein said THAP responsive promoter is modulated by a product of a gene that is under the control of a promoter which comprises a THAP responsive element.

59. (Withdrawn) A pharmaceutical composition comprising a THAP responsive element in a pharmaceutically acceptable carrier.

60. (Withdrawn) The pharmaceutical composition of Claim 59, wherein said THAP responsive element is a DR-5 element.

61. (Withdrawn) The pharmaceutical composition of Claim 59, wherein said THAP responsive element is an ER-11 element.

62. (Withdrawn) The pharmaceutical composition of Claim 59, wherein said THAP responsive element is an THRE.

63. (Withdrawn) A transcription factor decoy consisting essentially of a THAP responsive element.

64. (Withdrawn) The transcription factor decoy of Claim 63, wherein said THAP responsive element is a DR-5 element.

65. (Withdrawn) The transcription factor decoy of Claim 63, wherein said THAP responsive element is a ER-11 element.

66. (Withdrawn) The transcription factor decoy of Claim 63, wherein said THAP responsive element is a THRE element.

67. (Withdrawn) A cell comprising a transcription factor decoy of claim 63.

68. (Withdrawn) A method of modulating the interaction between a nucleic acid and a THAP-family polypeptide or a biologically active fragment thereof, said method comprising

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providing a transcription factor decoy which comprises a THAP responsive element, thereby modulating the interaction between said nucleic acid and said THAP-family polypeptide or a biologically active fragment thereof.

69. (Withdrawn) The method of Claim 68, wherein said THAP-family polypeptide is THAP1.

70. (Withdrawn) The method of Claim 68, wherein said THAP responsive element is a DR-5 element.

71. (Withdrawn) The method of Claim 68, wherein said THAP responsive element is an ER-11 element.

72. (Withdrawn) The method of Claim 68, wherein said THAP responsive element is THRE.

73. (Withdrawn) A method of modulating the interaction between a nucleic acid and a THAP/chemokine complex, said method comprising providing a transcription factor decoy which comprises a THAP responsive element, thereby modulating the interaction between said nucleic acid and said THAP/chemokine complex.

74. (Withdrawn) The method of Claim 73, wherein said THAP-family polypeptide is THAP1.

75. (Withdrawn) The method of Claim 73, wherein said chemokine is selected from the group consisting of SLC, CCL19, CCL5, CXCL11, CXCL10 and CXCL9.

76. (Withdrawn) The method of Claim 73, wherein said chemokine is SLC.

77. (Withdrawn) The method of Claim 73, wherein said chemokine is CXCL9.

78. (Withdrawn) The method of Claim 73, wherein said THAP responsive element is a DR-5 element.

79. (Withdrawn) The method of Claim 73, wherein said THAP responsive element is an ER-11 element.

80. (Withdrawn) The method of Claim 73, wherein said THAP responsive element is THRE.

81-110. (Canceled)

111. (Withdrawn) A method of ameliorating symptoms associated with a condition mediated by a THAP/chemokine complex, said method comprising:

introducing into a cell a nucleic acid construct comprising a nucleic acid encoding a chemokine operably linked to a promoter and a nucleic acid construct comprising a nucleic acid encoding a THAP-family polypeptide or a biologically active fragment thereof operably linked to a promoter; and

expressing said nucleic acid encoding said chemokine and said nucleic acid encoding said THAP-family polypeptide or biologically active fragment thereof.

112. (Withdrawn) The method of Claim 111, wherein said nucleic acid constructs are present on a single vector.

113. (Withdrawn) The method of Claim 111, wherein said nucleic acid constructs are present on different vectors.

114. (Withdrawn) The method of Claim 111, wherein said cell is a mammalian cell.

115. (Withdrawn) The method of Claim 114, wherein said cell is a human cell.

116. (Withdrawn) The method of Claim 111, wherein said nucleic acid encoding said chemokine encodes a chemokine selected from the group consisting of SLC, CCL19, CCL5, CXCL11, CXCL10 and CXCL9.

117. (Withdrawn) The method of Claim 111, wherein said nucleic acid encoding said chemokine encodes SLC.

118. (Withdrawn) The method of Claim 111, wherein said nucleic acid encoding said chemokine encodes CXCL9.

119. (Withdrawn) The method of Claim 111, wherein said THAP-family polypeptide is THAP1.

120. (Withdrawn) A method of identifying a test compound that modulates transcription at a THAP responsive element, said method comprising:

comparing the level of transcription from a THAP responsive promoter in the presence and absence of a test compound wherein a determination that the level of transcription is increased or decreased in the presence of said test compound relative to the level of transcription in the absence of said test compound indicates that said test compound is a candidate modulator of transcription.

121. (Withdrawn) The method of Claim 120, wherein the level of transcription from said THAP responsive promoter in the presence and absence of the test compound is determined

by performing an in vitro transcription reaction using a construct comprising said THAP responsive promoter and a THAP-family polypeptide or a biologically active fragment thereof, wherein said THAP-family polypeptide comprises an amino acid sequence having at least 30% amino acid identity to an amino acid sequence of SEQ ID NO: 1.

122. (Withdrawn) The method of Claim 120, wherein the level of transcription from said THAP responsive promoter in the presence and the absence of the test compound is determined by measuring the level of transcription from a THAP responsive promoter in a cell expressing a THAP-family polypeptide or a biologically active fragment thereof, wherein said THAP-family polypeptide comprises an amino acid sequence having at least 30% amino acid identity to an amino acid sequence of SEQ ID NO: 1.

123. (Withdrawn) The method of Claim 120, wherein said THAP-family polypeptide or biologically active fragment thereof is selected from the group consisting of SEQ ID NOs: 1-114 and biologically active fragments thereof.

124. (Withdrawn) The method of Claim 120, wherein said THAP responsive promoter comprises a THAP responsive element having a nucleotide sequence selected from the group consisting of SEQ ID NOs: 140-159, SEQ ID NO: 306, and homologs thereof having at least 60% nucleotide identity.

125. (Withdrawn) The method of Claim 121 or Claim 122, wherein the level of transcription in the presence or absence of said test compound is measured in the presence of a chemokine.

126. (Withdrawn) The method of Claim 125, wherein said chemokine is selected from the group consisting of CCL family chemokines and CXCL family chemokines.

127. (Withdrawn) The method of Claim 126, wherein said CCL family chemokine is selected from the group consisting of SLC, CCL19 and CCL5.

128. (Withdrawn) The method of Claim 126, wherein said CXCL family chemokine is selected from the group consisting of CXCL11, CXCL10 and CXCL9.

129. (Withdrawn) The method of Claim 125, wherein the level of transcription in the presence or absence of said test compound is measured in a cell which expresses a receptor for said chemokine.

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130. (Withdrawn) The method of Claim 129, wherein said chemokine receptor is selected from the group consisting of CCR1, CCR3, CCR5, CCR7, CCR11 and CXCR3.

131. (Withdrawn) The method of Claim 130, wherein said chemokine is selected from the group consisting of SLC, CCL19, CCL5, CXCL11, CXCL10 and CXCL9.

132. (Withdrawn) The method of Claim 129, wherein said THAP-family polypeptide comprises THAP1 or a biologically active fragment thereof and said cell expresses the CCR7 receptor.

133. (Withdrawn) The method of Claim 132, wherein said chemokine is SLC.

134. (Withdrawn) The method of Claim 129, wherein said THAP-family polypeptide comprises THAP1 or a biologically active fragment thereof and said cell expresses the CXCR3 receptor.

135. (Withdrawn) The method of Claim 134, wherein said chemokine is CXCL9.

136. (Withdrawn) The method of Claim 122, wherein said THAP responsive promoter is in a gene endogenous to said cell.

137. (Withdrawn) The method of Claim 122, wherein said THAP responsive promoter has been introduced into said cell.

138. (Withdrawn) The method of Claim 122, wherein said THAP responsive promoter does not comprise a THAP responsive element.

139. (Withdrawn) The method of Claim 138, wherein said THAP responsive promoter is modulated by a product of a gene that is under the control of a promoter which comprises a THAP responsive element.

140-212. (Canceled)